

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	("9600165").PN.	US-PGPUB; USPAT	OR	OFF	2007/08/14 08:15
L2	0	(09/600165).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/08/14 08:15
L3	2	"09600165"	US-PGPUB; USPAT	AND	ON	2007/08/14 08:15
S1	0	lee adj jeon adj jun	US-PGPUB; USPAT	AND	ON	2007/08/14 08:11
S2	0	(426/036).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/08/09 15:23
S3	497	(hard near2 cheese\$1)or (semi adj hard near2 cheese\$1)	US-PGPUB; USPAT	AND	ON	2007/08/09 15:27
S4	4	S3 and lactobacillus adj gasseri	US-PGPUB; USPAT	AND	ON	2007/08/09 16:09
S5	1	("6596530").PN.	US-PGPUB; USPAT	OR	OFF	2007/08/13 07:12
S6	546	(424/93.45).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/08/13 07:12
S7	109	S6 and (Lactobacillus adj gasseri or Helicobacter adj pylori)	US-PGPUB; USPAT	AND	ON	2007/08/13 07:14
S8	10	S7 and (Lactobacillus adj gasseri and Helicobacter adj pylori)	US-PGPUB; USPAT	AND	ON	2007/08/13 07:24
S9	416	(435/252.9).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/08/13 07:25
S10	69	S9 and (lactobacillus adj gasseri or Helicobacter adj pylori)	US-PGPUB; USPAT	AND	ON	2007/08/13 07:26
S11	7	S10 and (lactobacillus adj gasseri and Helicobacter adj pylori)	US-PGPUB; USPAT	AND	ON	2007/08/13 07:27
S12	691	(426/61).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/08/13 07:28
S13	22	S12 and (Lactobacillus adj gasseri or Helicobacter adj pylori)	US-PGPUB; USPAT	AND	ON	2007/08/13 07:29
S14	4	S13 and (Lactobacillus adj gasseri and Helicobacter adj pylori)	US-PGPUB; USPAT	AND	ON	2007/08/13 07:38
S15	1	("5578302").PN.	US-PGPUB; USPAT	OR	OFF	2007/08/13 07:44
S16	0	stomach adj ulcers and lactobacillus adj gasseri and Helicobacter adj pylori	US-PGPUB; USPAT	AND	ON	2007/08/13 07:45

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FILE 'HOME' ENTERED AT 15:24:18 ON 14 AUG 2007

=> file caplus  
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SINCE FILE ENTRY TOTAL  
FULL ESTIMATED COST 0.21 SESSION 0.21

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FILE COVERS 1907 - 14 Aug 2007 VOL 147 ISS 8  
FILE LAST UPDATED: 13 Aug 2007 (20070813/ED)

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=> set plurals on  
SET COMMAND COMPLETED

=> set abb on  
SET COMMAND COMPLETED

=> e cheese making  
E1 1 CHEESECLOTH/BI  
E2 25372 CHEESE/BI  
E3 0 --> CHEESE MAKING/BI  
E4 1 CHEESEBREAD/BI  
E5 1 CHEESEBROTH/BI  
E6 1 CHEESEBROUGH/BI  
E7 6 CHEESEBURGER/BI  
E8 4 CHEESEBURGERS/BI  
E9 36 CHEESECAKE/BI  
E10 5 CHEESECAKES/BI  
E11 299 CHEESECLOTH/BI  
E12 3 CHEESECLOTHS/BI

=> e  
E13 1 CHEESECONE/BI  
E14 1 CHEESECURD/BI  
E15 1 CHEESED/BI  
E16 1 CHEESEFORMING/BI  
E17 1 CHEESEHEADS/BI  
E18 49 CHEESELIKE/BI  
E19 1 CHEESELMBO/BI  
E20 21 CHEESEMAKER/BI  
E21 9 CHEESEMAKERS/BI  
E22 660 CHEESEMAKING/BI  
E23 4 CHEESEMAKINGS/BI

E24 26 CHEESEMAN/BI

=> S e22

660 CHEESEMAKING/BI  
4 CHEESEMAKINGS/BI  
L1 663 CHEESEMAKING/BI  
(CHEESEMAKING OR CHEESEMAKINGS)/BI)

=> S L1 and method? or process?

4535626 METHOD?  
4155571 PROCESS?

L2 4155632 L1 AND METHOD? OR PROCESS?

=> S L1 and method?

4535626 METHOD?

L3 97 L1 AND METHOD?

=> S L3 (L) (yeast extract)

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'L3 (L) '

207271 YEAST  
34487 YEASTS  
215816 YEAST  
(YEAST OR YEASTS)  
44233 EXTRACT  
48452 EXTRACTS  
88392 EXTRACT  
(EXTRACT OR EXTRACTS)  
328085 EXT  
234897 EXTS  
501502 EXT  
(EXT OR EXTS)  
531410 EXTRACT  
(EXTRACT OR EXT)  
18214 YEAST EXTRACT  
(YEAST(W) EXTRACT)  
L4 2 L3 (L) (YEAST EXTRACT)

=> D L4 IBIB ABS 1-2

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:497464 CAPLUS

DOCUMENT NUMBER: 133:237043

TITLE: Indirect conductimetry in the study of  
propionibacteria inhibition

AUTHOR(S): Todesco, Rosanna; Carcano, Michela; Lodi, Roberta;  
Crepaldi, Paola

CORPORATE SOURCE: CNR, Centro Studi Latte-Milano, Milan, 20133, Italy

SOURCE: Lait (2000), 80(3), 337-346

CODEN: LAITAG; ISSN: 0023-7302

PUBLISHER: EDP Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Temperature (T), pH and NaCl concentration are the parameters that control the  
rate of

propionic acid bacteria (PAB) growth. The indirect conductimetric  
technique was employed and a medium containing yeast ext.,  
Na acetate, L (+)-cysteine chloride and Na lactate was formulated to  
amplify the elec. signal. Sixteen PAB strains isolated from milk for  
Grana cheesemaking were tested in different combinations of 4  
parameters (temperature, pH, NaCl and species); data were expressed as  
percentage of growth delay compared to standard conditions (pH 6.1, 30  
°C, no NaCl added). Decreasing temperature caused the most significant  
growth delay (131% at 22 °C and 438% at 15 °C), while PAB

in growth with decreasing pH and increasing NaCl concentration was less affected

the most restrictive conditions (236% at pH 5.2 and 222% at 2.5% NaCl resp.). A slight stimulating effect was observed at 30 °C and low NaCl content (from 193% at 0% down to 187% at 0.5%). The double combinations T + pH and T + NaCl further increased delay values up to 489% (T + pH) and to 482% (T + NaCl) in the most restrictive conditions, and temperature was always the most important factor; the stimulating effect due to NaCl was amplified at 30 °C for all concns. and at 22 °C at 0.5%. A significant difference was found in the behavior of the 4 tested species: *P. thoeni* was the most inhibited, while *P. freudenreichii* and *P. acidipropionici* underwent the lowest growth reduction. Strictly controlled temperature (under 22 °C), curd acidification (under pH 5.4) and brine salt concentration are the cheesemaking steps identified as the critical points for containing PAB growth; the reliability of the proposed method suggests further individualization of the most suitable factor levels to contain the late blowing defect.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1954:40297 CAPLUS

DOCUMENT NUMBER: 48:40297

ORIGINAL REFERENCE NO.: 48:7218c-d

TITLE: Determination of antibiotics in milk for cheesemaking

AUTHOR(S): Treccani, Vittorio

CORPORATE SOURCE: Univ. Milano

SOURCE: Ann. microbiol. (1953), 5, 93-7

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The method of Sanchez and Lamensas (C.A. 43, 7076a) was improved by adding 0.1% "yeast ext. Difco" to hasten the milk coagulation by *Lactobacillus bulgaricus*. Detns. last 2-3 hrs., including the time of preparing tests.

=> e lactic acid bacteri?

E1 1 LACTIBIONATE/BI  
E2 105712 LACTIC/BI  
E3 0 --> LACTIC ACID BACTERI?/BI  
E4 1 LACTIC1/BI  
E5 6 LACTICA/BI  
E6 21 LACTICACID/BI  
E7 1 LACTICACIDAEMIA/BI  
E8 1 LACTICACIDE/BI  
E9 27 LACTICACIDEMIA/BI  
E10 11 LACTICACIDOSIS/BI  
E11 1 LACTICACIDURIA/BI  
E12 1 LACTICALDEHYDE/BI

=> e

E13 1 LACTICALLY/BI  
E14 9 LACTICAUDA/BI  
E15 1 LACTICBACTERIA/BI  
E16 2 LACTICBUTYRIC/BI  
E17 1 LACTICCO/BI  
E18 1 LACTICD/BI  
E19 8 LACTICDEHYDROGENASE/BI  
E20 1 LACTICDIETHYLACETAL/BI  
E21 19 LACTICE/BI  
E22 20 LACTICEMIA/BI  
E23 2 LACTICEMIC/BI  
E24 6 LACTICES/BI

=> e

E25	102	LACTICI/BI
E26	3	LACTICIDEMIA/BI
E27	1	LACTICIDOGEN/BI
E28	1	LACTICIDURIA/BI
E29	5	LACTICIFER/BI
E30	6	LACTICIFEROUS/BI
E31	5	LACTICIFERS/BI
E32	8	LACTICIFEX/BI
E33	1	LACTICIFIX/BI
E34	1	LACTICIL/BI
E35	187	LACTICIN/BI
E36	1	LACTICIN481/BI

=> e lactic acid bacteria

E1	1	LACTIBIONATE/BI
E2	105712	LACTIC/BI
E3	0	--> LACTIC ACID BACTERIA/BI
E4	1	LACTIC1/BI
E5	6	LACTICA/BI
E6	21	LACTICACID/BI
E7	1	LACTICACIDAEMIA/BI
E8	1	LACTICACIDE/BI
E9	27	LACTICACIDEMIA/BI
E10	11	LACTICACIDOSIS/BI
E11	1	LACTICACIDURIA/BI
E12	1	LACTICALDEHYDE/BI

=> e lactobacilli

E1	1	LACTOBACILLEMIAS/BI
E2	1	LACTOBACILLEN/BI
E3	3735	--> LACTOBACILLI/BI
E4	1	LACTOBACILLIACEAE/BI
E5	1	LACTOBACILLIAND/BI
E6	118	LACTOBACILLIC/BI
E7	1	LACTOBACILLII/BI
E8	13	LACTOBACILLIN/BI
E9	3	LACTOBACILLINE/BI
E10	24	LACTOBACILLIS/BI
E11	7	LACTOBACILLIUS/BI
E12	9	LACTOBACILLUS/BI

=> S e3

L5	3735	LACTOBACILLI/BI
	24	LACTOBACILLIS/BI
L5	3758	LACTOBACILLI/BI
		((LACTOBACILLI OR LACTOBACILLIS)/BI)

=> S L5 and (L) (growth or survival rate)

MISSING TERM 'AND (L'

The search profile that was entered contains a logical operator followed immediately by another operator.

=> S L5 (growth or survival rate)

MISSING OPERATOR 'L5 (GROWTH'

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> S L5 (L) (growth or survival rate)

1367615 GROWTH

4541 GROWTHS

1369920 GROWTH

(GROWTH OR GROWTHS)

166357 SURVIVAL  
1179 SURVIVALS  
166824 SURVIVAL  
(SURVIVAL OR SURVIVALS)  
1858702 RATE  
619732 RATES  
2218370 RATE  
(RATE OR RATES)  
18015 SURVIVAL RATE  
(SURVIVAL (W) RATE)  
L6 834 L5 (L) (GROWTH OR SURVIVAL RATE)

=> S L6 (L) (yeast extract)  
207271 YEAST  
34487 YEASTS  
215816 YEAST  
(YEAST OR YEASTS)  
44233 EXTRACT  
48452 EXTRACTS  
88392 EXTRACT  
(EXTRACT OR EXTRACTS)  
328085 EXT  
234897 EXTS  
501502 EXT  
(EXT OR EXTS)  
531410 EXTRACT  
(EXTRACT OR EXT)  
18214 YEAST EXTRACT  
(YEAST (W) EXTRACT)  
L7 19 L6 (L) (YEAST EXTRACT)

=> D L7 IBIB ABS 1-5

L7 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2006:502097 CAPLUS  
DOCUMENT NUMBER: 145:26921  
TITLE: A novel culture medium for lactobacilli based on  
cheese whey  
AUTHOR(S): Masuda, Tetsuya; Nagai, Aya; Suzuta, Yasuyuki; Itoh,  
Takatoshi  
CORPORATE SOURCE: Coll. Bioresour. Sci., Nihon University, Fujisawa,  
252-8510, Japan  
SOURCE: Miruku Saiensu (2006), 55(1), 23-29  
CODEN: MISAFD; ISSN: 1343-0289  
PUBLISHER: Nippon Rakuno Kagakkai  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese

AB Numerous fermented milk products containing probiotic lactobacilli  
have recently been commercialized in Japan. Certain probiotic  
lactobacilli grow slowly in milk. Therefore, some products are  
produced by co-culture with ordinary yogurt starter bacteria after the  
addition of sufficient amts. of sep. propagated viable probiotic cells. Only  
a limited culture media for the test purpose of lactobacilli are  
com. available (for example MRS broth), but the media for large-scale  
propagation of viable cells which are able to be used as food additive are  
not available. The manufacture of a low-priced and preferred novel medium for  
lactobacilli was, therefore, attempted using cheese whey powder as  
a starting material. Heat labile proteins in cheese whey were removed by  
preheating, then the whey solution was complemented with casein-protease  
hydrolyzate, glucose, yeast ext. of food additive  
grade, Tween 80 and minerals. The growth test was mainly  
performed using human originated Lactobacillus acidophilus strains. The  
growth of several lactobacilli in the finally attained  
medium (WIM broth) composed of 7% deproteinized cheese whey, 1% glucose,

0.3% yeast ext., 0.1% Tween 80 and minerals, was comparable to MRS broth. The modified WIM broth which Tween 80 was replaced with decaglycerol-monooleate and composed of only food additive grade minerals was also a prominent medium for large-scale propagation of viable cells for the purpose of adding into several food products.

L7 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:1236895 CAPLUS  
DOCUMENT NUMBER: 145:162779  
TITLE: Growth of *Lactobacillus plantarum* in media containing hydrolysates of fish viscera  
AUTHOR(S): Horn, S. J.; Aspmo, S. I.; Eijsink, V. G. H.  
CORPORATE SOURCE: Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences, Aas, Norway  
SOURCE: Journal of Applied Microbiology (2005), 99(5), 1082-1089  
CODEN: JAMIFK; ISSN: 1364-5072  
PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB To compare growth of *Lactobacillus plantarum* on media containing hydrolyzates (peptones) from cod viscera with growth on com. media. Growth of *Lact. plantarum* on various fish peptones and com. peptones/exts. was evaluated using both a Bioscreen apparatus (microtiter plates, no pH control) and fermentors (with pH control). Generally, the performance of the fish peptones was good and only beaten by the performance of yeast ext. Replacement of the 22 g l-1 complex nitrogen source in standard MRS medium with only 5 g l-1 fish peptone reduced the biomass yield with only 10%, whereas replacement with a mixture of 2.5 g l-1 fish peptone and 2.5 g l-1 yeast ext. increased the biomass yield by 10%. Peptones derived from cod viscera support excellent growth of *Lact. plantarum*. We show that peptones derived from cod viscera are promising constituents of growth media for fastidious food bacteria such as *lactobacilli*. Media containing these peptones show excellent performance while problems associated with the use of meat-derived peptones (BSE, kosher status) or plant-derived peptones (genetically modified organisms) are avoided.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:185646 CAPLUS  
TITLE: Evaluation of modified M17 broth for growth of probiotic lactic acid bacteria and bifidobacteria  
AUTHOR(S): Ibrahim, Salam A.; Salameh, M. M.; Seo, C. W.; Ahmed, S. A.; Worku, M.  
CORPORATE SOURCE: Food Science and Nutrition, North Carolina A&T State University, Greensboro, NC, 27411-1064, USA  
SOURCE: Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), AGFD-149. American Chemical Society: Washington, D. C.  
CODEN: 69GQMP  
DOCUMENT TYPE: Conference; Meeting Abstract  
LANGUAGE: English  
AB International dairy federation (IDF) recommends M17 broth for starter lactococci and streptococci and MRS broth (DeMan Rogosa Sharpe) for starter *Lactobacilli* growth. M17 broth medium with specific modifications could be utilized for growth of selected *Lactobacillus reuteri* and *Bifidobacterium* sp. as a convenient medium that can be used easily by the industry in a routine fashion. The objective of this study was to evaluate the ability of modified M17 to promote the

growth of *L. reuteri* and bifidobacteria. Six strains of *L. reuteri* (DSM20016, MM2-3, SD2112, CF2-7F, and MF14-C) and four strains of *Bifidobacterium* sp. [*B. infantis* (ATCC 15697, ATCC 15702, ATCC 25962), and *B. longum* 79] were used in this study. The modified M17 broth was prepared by adding M17 37.25 g/l; beef extract 5.0 g/l, yeast ext. 2.5g/l, and peptone from casein 5.0 g/l. Glucose solution (20.0g/100mL) was autoclaved sep. and added to the autoclaved modified M17 broth. Overnight cultures were centrifuged and washed twice with peptone water. Strains were inoculated into fresh M17 and modified M17 broths, then mixed well and incubated at 37°C for 24 h. Bacterial growth was monitored using spectrophotometer (610nm) at 0.0, 12, and 24 h. At the end of incubation period, all tested strains were plated on MRS agar to obtain microbial population. Results showed that higher microbial growth was observed in all tested strains using modified M17. The optical d. in the modified M 17 reached 1.30 and greater, while it only reached 0.70 in the original M17. The bacterial population increased by at least 1.0 log cfu/mL. Modified M17 could be a good growth medium in quality control labs. for general purpose of bacterial growth of lactic acid bacteria and probiotics.

L7 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:952242 CAPLUS

DOCUMENT NUMBER: 142:175412

TITLE: A repeated batch process for cultivation of *Bifidobacterium longum*

AUTHOR(S): Her, S.-L.; Duan, K.-J.; Sheu, D.-C.; Lin, C.-T.

CORPORATE SOURCE: Department of Bioengineering, Tatung University, Taipei, Taiwan

SOURCE: Journal of Industrial Microbiology & Biotechnology (2004), 31(9), 427-432

CODEN: JIMBFL; ISSN: 1367-5435

PUBLISHER: Springer GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A repeated batch process was performed to culture *Bifidobacterium longum* CCRC 14634. An online device, oxidation-reduction potential (ORP), was used to monitor cell growth and uptake of nutrients in the culture. The ORP of the culture medium decreased substantially during fermentation until nutrients were depleted. Six cycles of batch fermentation using ORP as a control parameter were successfully carried out. As soon as ORP remained constant or increased, three-quarters of the broth was removed, and the same volume of fresh medium was fed to the fermenter for a new cycle of cultivation. Average cell concns. of  $1.9 \times 10^9$  and  $3.4 \times 10^9$  cfu mL<sup>-1</sup> for repeated batch fermentation in MRS (Lactobacilli MRS broth) and WY (containing whey hydrolyzates, yeast ext., L-cysteine) medium, resp., were achieved. Cell mass productivities for batch, fed-batch and repeated batch fermentation using MRS medium were 0.51, 0.41, and 0.64 g L<sup>-1</sup> h<sup>-1</sup>, resp., and those for batch and repeated batch using WY medium were 0.76, 0.99 g L<sup>-1</sup> h<sup>-1</sup>, resp. The results indicate a possible industrial process to culture *Bifidobacterium* sp.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:698700 CAPLUS

DOCUMENT NUMBER: 142:332583

TITLE: Cell growth and bacteriocin production of probiotic *Lactobacillus* strains in different media

AUTHOR(S): Avonts, Lazlo; Van Uytven, Erika; De Vuyst, Luc

CORPORATE SOURCE: Research Group of Industrial Microbiology, Fermentation Technology and Downstream Processing (IMDO), Department of Applied Biological Sciences, Vrije Universiteit Brussel (VUB), Brussels, B-1050, Belg.

SOURCE: International Dairy Journal (2004), 14(11), 947-955  
CODEN: IDAJE6; ISSN: 0958-6946  
PUBLISHER: Elsevier B.V  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Growth, metabolism, and bacteriocin production by 7 *Lactobacillus* strains including 5 com. probiotic strains were studied during fermentation in MRS medium and milk medium at constant pH 6.5. These strains were *Lactobacillus acidophilus* ACC, *L. acidophilus* IBB 801, *L. casei* Imunitas, *L. casei* YIT 9029, *L. gasseri* K7, *L. johnsonii* Lal, and *L. rhamnosus* GG. Although the *L. casei* complex strains grew to higher cell levels than the *L. acidophilus* complex strains in MRS medium, monitored bacteriocin titers were higher for the *L. acidophilus* complex strains. *L. johnsonii* Lal and *L. gasseri* K7 grew in milk medium only when yeast ext. was added. Addition of yeast ext. (0.3-1.0% w/v) to milk medium enhanced both growth and bacteriocin production for all strains. Bacteriocin production was clearly observed in yeast ext. supplemented milk medium for *L. acidophilus* IBB 801, *L. johnsonii* Lal, and *L. gasseri* K7. *L. acidophilus* IBB 801, the only strain of dairy origin, displayed the best growth (10.5 log CFU mL<sup>-1</sup>) and bacteriocin production (3200 AU mL<sup>-1</sup>). These findings demonstrated that probiotic lactobacilli from an intestinal origin are difficult to cultivate in milk.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> S L7 and py<2001  
20934369 PY<2001  
L8 10 L7 AND PY<2001

=> D L8 IBIB ABS 1-3

L8 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2000:92803 CAPLUS  
DOCUMENT NUMBER: 132:278217  
TITLE: Influence of growth conditions on the production of a bacteriocin by *Lactobacillus acidophilus* L4  
AUTHOR(S): Kapila, Suman; Sinha, P. R.; Sinha, R. N.; Kapila, Rajeev  
CORPORATE SOURCE: Animal Biochemistry Division, National Dairy Research Institute, Karnal, India  
SOURCE: Microbiologie, Aliments, Nutrition (1999), 17(2), 93-99  
CODEN: MANUEP; ISSN: 0759-0644

PUBLISHER: Societe I.E.E.N.A.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Production of bacteriocin by lactobacilli is generally viewed with great interest because of the probiotic influence of the organism. Under present investigation *Lactobacillus acidophilus* L4, an isolate from gastrointestinal tract of rat, has been examined for its inhibitory effect (bacteriocinogenic activity) against related strains and influence of growth conditions on the production of bacteriocin was studied. The maximum quantity of bacteriocin was produced when the culture was grown at 37°C, for 16-18 h, in MRS broth (initial pH, 6.5-7.0) containing Tween 80 (0.2%), sucrose (1%) and yeast ext. (0.5%). A low final pH and large cell mass were related to high level of bacteriocin production

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1999:273411 CAPLUS

TITLE: Evaluation of yeast extracts as growth media supplements for lactococci and lactobacilli by using automated spectrophotometry

AUTHOR(S): Champagne, Claude P.; Gaudreau, Helene; Conway, John; Chartier, Nathalie; Fonchy, Evelyne

CORPORATE SOURCE: Food Research and Development Center, Agriculture and Agri-Food Canada, St. Hyacinthe, QC, J2S 8E3, Can.

SOURCE: Journal of General and Applied Microbiology (1999), 45(1), 17-21

CODEN: JGAMA9; ISSN: 0022-1260

PUBLISHER: Microbiology Research Foundation

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An automated spectrophotometric (AS) method was used to evaluate the growth-promoting ability of yeast exts. (YE) on cultures of *Lactobacillus acidophilus* and *Lactococcus lactis* subsp. *cremoris*. The AS data were compared to that obtained from classical shake flask fermns. and from 250 mL bioreactors equipped with pH control. In assays involving the evaluation of 26 different com. YE, maximum growth rate ( $\mu_{max}$ ) values determined with the AS unit ranged from 0.25 to 0.45 h<sup>-1</sup> for *Lb. acidophilus* and from 0.10 to 0.40 h<sup>-1</sup> for *Lc. cremoris*. Good correlations were obtained between AS data and manual sampling from the shake flasks or the bioreactors for  $\mu_{max}$ , as well as maximum optical d. (OD<sub>max</sub>). The AS method is thus useful as a screening tool for the selection of YE lots in media formulation. Species reacted differently to the 26 YE, but less variation was observed between strains of the same species. This suggests that a producer of various lactococci or lactobacilli can expect a relatively constant response to a given YE lot between strains of the same species. However, it should not be assumed that the YE having the best growth-promoting properties for *Lb. acidophilus* will also be the best media supplements for the growth of *Lc. cremoris*.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:398699 CAPLUS

DOCUMENT NUMBER: 127:94388

TITLE: Development of a bovine plasma medium for propagation of lactobacilli

AUTHOR(S): De M., Y. Barboza; Marquez, E.; Gomez, O.; Rangel, L.

CORPORATE SOURCE: Unidad de Investigacion en Ciencia y Technologia de los Alimentos, Universidad del Zulia, Maracaibo, Venez.

SOURCE: Journal of Food Science and Technology (1997), 34(3), 261-263

CODEN: JFSTAB; ISSN: 0022-1155

PUBLISHER: Association of Food Scientists and Technologists (India)

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bovine plasma medium (BPM), based on bovine blood plasma that can be heat-sterilized, is described. Bovine plasma solution (BPS) was prepared by mixing 300 mL of bovine plasma with 300 mL of distilled water. The solution was adjusted to pH 11 and was sterilized in an autoclave at 121°C for 15 min. The sterile BPS was then mixed with a sterile solution of glucose, minerals and yeast ext. The final pH after mixing was about 6.4. The individual effects of minerals and yeast ext. were also tested. The microorganisms used to test the medium were *L. plantarum*, *L. casei*, *L. bulgaricus* and *L. acidophilus*. The efficiency of the new medium was compared with com. MRS and no differences in the growth of the different Lactobacilli were observed

It was concluded that a new, low cost, practical medium could be developed for the propagation of Lactobacilli.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L8 ibib abs 4-6

L8 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:229214 CAPLUS

DOCUMENT NUMBER: 124:315411

TITLE: Effect of supplementation of some nutrients in whey on the production of lactic acid

AUTHOR(S): Gupta, Rekha; Gandhi, D.N.

CORPORATE SOURCE: Dairy Microbiology Division, National Dairy Research Institute, Karnal, 132 001, India

SOURCE: Indian Journal of Dairy Science (1995), 48(11), 636-41

CODEN: IJDSAI; ISSN: 0019-5146

PUBLISHER: Indian Dairy Association

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Among 3 species of lactobacilli (*Lactobacillus acidophilus*, *L. delbrueckii bulgaricus* and *L. kefir*) used to select and to optimize the conditions for the production of lactic acid from whey, an isolate of *L. kefir* showed maximum acid production when incubated at 43° for 72 h. Supplementation of whey with yeast exts., lactose and molasses alone showed stimulatory effects on the growth of lactic acid bacteria when these were added at low concns.: 0.5, 1.0 and 1.0%, resp. Higher concns. of supplements did not show increased acid production in whey. Combination of yeast ext. and lactose exhibited maximum acid production as compared to addition of a single nutrient under the same fermentation conditions.

L8 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:203832 CAPLUS

DOCUMENT NUMBER: 125:8602

TITLE: Batch and continuous production of lactic acid from salt whey using free and immobilized cultures of lactobacilli

AUTHOR(S): Zayed, G.; Winter, J.

CORPORATE SOURCE: Institut Ingenieurbiologie Biotechnologie, Universitaet Karlsruhe, Karlsruhe, D-76131, Germany

SOURCE: Applied Microbiology and Biotechnology (1995), 44(3-4), 362-6

CODEN: AMBIDG; ISSN: 0175-7598

PUBLISHER: Springer

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Salt whey permeate was used as a substrate for lactic acid production by different strains of homofermentative lactobacilli. An isolate from Egyptian Cheddar cheese proved to be the most effective lactic acid producer. The salt whey permeate was optimized by addition of yeast ext. and minerals to enable exponential growth of organisms. The lactic acid productivity of free and immobilized cells was compared and fermentation conditions were improved. Continuous lactic acid fermentation from salt whey permeate with cells immobilized in agarose beads was

successfully carried out in a chemostat with a steady lactic acid concentration of 33.4 mg/mL.

L8 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:487805 CAPLUS

DOCUMENT NUMBER: 81:87805  
TITLE: Isolation of a growth factor for homofermentative lactobacilli  
AUTHOR(S): Oliver, Guillermo; Pesce de Ruiz Holgado, Aida A.; Benito de Cardenas, Ida L.; Ledesma, Orlando  
CORPORATE SOURCE: Fac. Bioquim. Quim., Univ. Nac. Tucuman, Tucuman, Argent.  
SOURCE: Revista Latinoamericana de Microbiologia (1973), 15(3), 117-22  
CODEN: RLMIAA; ISSN: 0034-9771  
DOCUMENT TYPE: Journal  
LANGUAGE: Spanish  
AB A factor separated by cationic exchange and Sephadex G-25 columns from dialyzed LAPTg medium (yeast ext. 1, peptone 1.5, tryptone 1, Tween 80 0.1, and glucose 1%) and added to a basal semisynthetic medium (Ford's medium) supported the growth of a group of homofermentative lactobacilli which previously did not grow on this medium. The chemical nature of this factor is still unknown; however, it has a low mol. weight, is heat stable, and is inactivated by acid and alkaline hydrolysis.

=> e cheese?

E1	1	CHEESECLOTH/BI
E2	25372	CHEESE/BI
E3	0	--> CHEESE?/BI
E4	1	CHEESEBREAD/BI
E5	1	CHEESEBROTH/BI
E6	1	CHEESEBROUGH/BI
E7	6	CHEESEBURGER/BI
E8	4	CHEESEBURGERS/BI
E9	36	CHEESECAKE/BI
E10	5	CHEESECAKES/BI
E11	299	CHEESECLOTH/BI
E12	3	CHEESECLOTHS/BI

=> s e2

	25372	CHEESE/BI
	5621	CHEESES/BI
L9	25754	CHEESE/BI ((CHEESE OR CHEESES)/BI)